January, 2001

File or Docket Number

Wisconsin Department of Natural Resources

RAPID ASSESSMENT METHODOLOGY FOR EVALUATING WETLAND FUNCTIONAL VALUES

GENERAL INFORMATION

Name of Wetland/Owner:
Location: County _____; ¼, ¼, Section , Township , Range
Project Name:
Evaluator(s):
Date(s) of Site Visit(s):

Description of seasonality limitations of this inspection due to time of year of the evaluation and/or current hydrologic and climatologic conditions (e.g. after heavy rains, snow or ice cover, during drought year, during spring flood, during bird migration):

WETLAND DESCRIPTION

Wisconsin Wetlands Inventory classification:
Wetland Type: shallow open water deep marsh shallow marsh seasonally flooded basin bog floodplain forest alder thicket sedge meadow coniferous swamp fen wet meadow shrub-carr low prairie hardwood swamp
Estimated size of wetland in acres:

SUMMARY OF FUNCTIONAL VALUES

Based on the results of the attached functional assessment, rate the significance of each of the functional values for the subject wetland and check the appropriate box. Complete the table as a summary.

FUNCTION	SIGNIFICANCE				
	Low	Medium	High	Exceptional	N/A
Floral Diversity					
Wildlife Habitat					
Fishery Habitat					
Flood/Stormwater Attenuation					
Water Quality Protection					
Shoreline Protection					
Groundwater					
Aesthetics/Recreation/Education					

List any Special Features/"Red Flags":

SITE DESCRIPTION

I. HYDROLOGIC SETTING

A. Describe the geomorphology of the wetland:

- ❑ Depressional (includes slopes, potholes, small lakes, kettles, etc.)
- ❑ Riverine
- ❑ Lake Fringe
- ❑ Extensive Peatland

B. **Y N** Has the wetland hydrology been altered by ditching, tiles, dams, culverts, well pumping, diversion of surface flow, or changes to runoff within the watershed (circle those that apply)?

C. **Y N** Does the wetland have an inlet, outlet, or both (circle those that apply)?

D. **Y N** Is there any field evidence of wetland hydrology such as buttressed tree trunks, adventitious roots, drift lines, water marks, water stained leaves, soil mottling/gleying, organic soils layer, or oxidized rhizospheres (circle those that apply)?

E. **Y N** Does the wetland have standing water, and if so what is the average depth in inches? _____" Approximately how much of the wetland is inundated? _____%

F. How is the hydroperiod (seasonal water level pattern) of the wetland classified?

- ❑ Permanently Flooded
- ❑ Seasonally Flooded (water absent at end of growing season)
- ❑ Saturated (surface water seldom present)
- ❑ Artificially Flooded
- ❑ Artificially Drained

G. **Y N** Is the wetland a navigable body of water or is a portion of the wetland below the ordinary high-water mark of a navigable water body? List any surface waters associated with the wetland or in proximity to the wetland (note approximate distance from the wetland and navigability determination). Note if there is a surface water connection to other wetlands.

II. VEGETATION

A. Identify the vegetation communities present and the dominant species.

	floating leaved community dominated by:
	submerged aquatic community dominated by:
	emergent community dominated by:
	shrub community dominated by:
	deciduous broad-leaved tree community dominated by:
	coniferous tree community dominated by:
	open sphagnum mat or bog
	sedge meadow/wet prairie community dominated by:
	other (explain)

B. Other plant species identified during site visit:

III. SOILS

A. NRCS Soil Map Classification: _____

B. Field description:

❑ Organic (histosol)? If so, is it a muck or a peat?

❑ Mineral soil?

- Mottling, gleying, sulfidic materials, iron or manganese concretions, organic streaking (circle those that apply)
- Soil Description: _____
- Depth of mottling/gleying: _____
- Depth of A Horizon: _____
- Munsell Color of matrix and mottles
  - -Matrix below the A horizon (10"depth): _____
  - -Mottles: _____

V. SURROUNDING LAND USES

A. What is the estimated area of the wetland watershed in acres? _____

B. What are the surrounding land uses?

LAND-USE	ESTIMATED % OF WETLAND WATERSHED
Developed (Industrial/Commercial/Residential)	
Agricultural/cropland	
Agricultural/grazing	
Forested	
Grassed recreation areas/parks	
Old field	
Highways or roads	
Other (specify)	

VI. SITE SKETCH

FUNCTIONAL ASSESSMENT

The following assessment requires the evaluator to examine site conditions that provide evidence that a given functional value is present and to assess the significance of the wetland to perform those functions. Positive answers to questions indicate the presence of factors important for the function. The questions are not definitive and are only provided to guide the evaluation. After completing each section, the evaluator should consider the factors observed and use best professional judgement to rate the significance. The ratings should be recorded on page 1 of the assessment.

SPECIAL FEATURES/"RED FLAGS"

1. **Y N** Is the wetland in or adjacent to an area of special natural resource interest (NR 103.04, Wis. Adm. Code)? If so, check those that apply:

- ❑ Cold water community as defined in s. NR 102.04(3)(b), Wis. Adm. Code, including trout streams, their tributaries, and trout lakes
- ❑ Lakes Michigan and Superior and the Mississippi River
- ❑ State or federal designated wild and scenic river
- ❑ Designated state riverway
- ❑ Designated state scenic urban waterway
- ❑ Environmentally sensitive area or environmental corridor identified in an area-wide water quality management plan, special area management plan, special wetland inventory study, or an advanced delineation and identification study
- ❑ Calcareous fen
- ❑ State park, forest, trail or recreation area
- ❑ State and federal fish and wildlife refuges and fish and wildlife management areas
- ❑ State or federal designated wilderness area
- ❑ Designated or dedicated state natural area
- ❑ Wild rice water listed in ch. NR 19.09, Wis. Adm. Code
- ❑ Surface water identified as an outstanding or exceptional resource water in ch. NR 102, Wis. Adm. Code

2. **Y N** According to the Natural Heritage Inventory (Bureau of Endangered Resources) or direct observations, are there any rare, endangered, or threatened plant or animal species in, near, or using the wetland or adjacent lands? If so, list the species of concern:

3. **Y N** Is the project located in an area that requires a State Coastal Zone Management Plan consistency determination?

Floral Diversity

1. **Y N** Does the wetland support a variety of native plant species (i.e. not a monotypic stand of cattail or giant reed grass and/or not dominated by exotic species such as reed canary grass, brome grass, buckthorn, purple loosestrife, etc.)?

2. **Y N** Is the wetland plant community regionally scarce or rare?

Wildlife and Fishery Habitat

1. List any species observed, evidenced (e.g. tracks, scat, nest/burrow, calls), or expected to utilize the wetland:

2. **Y N** Does the wetland contain a number of diverse vegetative cover types and a high degree of interspersion of those vegetation types?

3. **Y N** Is the estimated ratio of open water to cover between 30 and 70 percent? What is the estimated ratio? _____%

4. **Y N** Does the surrounding upland habitat likely support a variety of animal species?

5. **Y N** Is the wetland part of or associated with a wildlife corridor or designated environmental corridor?

6. **Y N** Is the surrounding habitat and/or the wetland itself a large tract of undeveloped land important for wildlife that requires large home ranges (e.g. bear, woodland passerines)?

7. **Y N** Is the surrounding habitat and/or the wetland itself a relatively large tract of undeveloped land within an urbanized environment that is important for wildlife?

8. **Y N** Are there other wetland areas near the subject wetland that may be important to wildlife?

9. **Y N** Is the wetland contiguous with a permanent waterbody or periodically inundated for sufficient periods of time to provide spawning/nursery habitat for fish?

10. **Y N** Can the wetland provide significant food base for fish and wildlife (e.g. insects, crustaceans, voles, forage fish, amphibians, reptiles, shrews, wild rice, wild celery, duckweed, pondweeds, watermeal, bulrushes, bur reeds, arrowhead, smartweeds, millets...)?

11. **Y N** Is the wetland located in a priority watershed/township as identified in the Upper Mississippi and Great Lakes Joint Venture of the North American Waterfowl Management Plan?

12. **Y N** Is the wetland providing habitat that is scarce to the region?

Flood and Stormwater Storage/Attenuation

1. **Y N** Are there steep slopes, large impervious areas, moderate slopes with row cropping, or areas with severe overgrazing within the watershed (circle those that apply)?

2. **Y N** Does the wetland significantly reduce run-off velocity due to its size, configuration, braided flow patterns, or vegetation type and density?

3. **Y N** Does the wetland show evidence of flashy water level responses to storm events (debris marks, erosion lines, stormwater inputs, channelized inflow)?

4. **Y N** Is there a natural feature or human-made structure impeding drainage from the wetland that causes backwater conditions?

5. **Y N** Considering the size of the wetland area in relation to the size of its watershed, at any time during the year is water likely to reach the wetland's storage capacity (i.e. the level of easily observable wetland vegetation)? [For some cases where greater documentation is required, one should determine if the wetland has capacity to hold 25% of the run-off from a 2 year-24 hour storm event.]

6. **Y N** Considering the location of the wetland in relation to the associated surface water watershed, is the wetland important for attenuating or storing flood or stormwater peaks (i.e. is the wetland located in the mid or lower reaches of the watershed)?

Water Quality Protection

1. **Y N** Does the wetland receive overland flow or direct discharge of stormwater as a primary source of water (circle that which applies)?

2. **Y N** Do the surrounding land uses have the potential to deliver significant nutrient and/or sediment loads to the wetland?

3. **Y N** Based on your answers to the flood/stormwater section above, does the wetland perform significant flood/stormwater attenuation (residence time to allow settling)?

4. **Y N** Does the wetland have significant vegetative density to decrease water energy and allow settling of suspended materials?

5. **Y N** Is the position of the wetland in the landscape such that run-off is held or filtered before entering a surface water?

6. **Y N** Are algal blooms, heavy macrophyte growth, or other signs of excess nutrient loading to the wetland apparent (or historically reported)?

Shoreline Protection

1. **Y N** Is the wetland in a lake fringe or riverine setting? If NO, STOP and enter "not applicable" for this function. If YES, then answer the applicable questions.

2. **Y N** Is the shoreline exposed to constant wave action caused by long wind fetch or boat traffic?

3. **Y N** Is the shoreline and shallow littoral zone vegetated with submerged or emergent vegetation in the swash zone that decrease wave energy or perennial wetland species that form dense root mats and/or species that have strong stems that are resistant to erosive forces?

4. **Y N** Is the stream bank prone to erosion due to unstable soils, land uses, or ice floes?

5. **Y N** Is the stream bank vegetated with densely rooted shrubs that provide upper bank stability?

Groundwater Recharge and Discharge

1. **Y N** Related to discharge, are there observable (or reported) springs located in the wetland, physical indicators of springs such as marl soil, or vegetation indicators such as watercress or marsh marigold present that tend to indicate the presence of groundwater springs?

2. **Y N** Related to discharge, may the wetland contribute to the maintenance of base flow in a stream?

3. **Y N** Related to recharge, is the wetland located on or near a groundwater divide (e.g. a topographic high)?

Aesthetics/Recreation/Education and Science

1. **Y N** Is the wetland visible from any of the following kinds of vantage points: roads, public lands, houses, and/or businesses? (Circle all that apply.)

2. **Y N** Is the wetland in or near any population centers?

3. **Y N** Is any part of the wetland is in public or conservation ownership?

4. **Y N** Does the public have direct access to the wetland from public roads or waterways? (Circle those that apply.)

5. Is the wetland itself relatively free of obvious human influences, such as:

   a. **Y N** Buildings?
   b. **Y N** Roads?
   c. **Y N** Other structures?
   d. **Y N** Trash?
   e. **Y N** Pollution?
   f. **Y N** Filling?
   g. **Y N** Dredging/draining?
   h. **Y N** Domination by non-native vegetation?

6. Is the surrounding viewshed relatively free of obvious human influences, such as:
   a. **Y N** Buildings?
   b. **Y N** Roads?
   c. **Y N** Other structures?

7. **Y N** Is the wetland organized into a variety of visibly separate areas of similar vegetation, color, and/or texture (including areas of open water)?

8. **Y N** Does the wetland add to the variety of visibly separate areas of similar vegetation, color, and/or texture (including areas of open water) within the landscape as a whole?

9. Does the wetland encourage exploration because any of the following factors are present:
   a. **Y N** Long views within the wetland?
   b. **Y N** Long views in the viewshed adjacent to the wetland?
   c. **Y N** Convoluted edges within and/or around the wetland border?
   d. **Y N** The wetland provides a different (and perhaps more natural/complex) kind of environment from the surrounding land covers?

10. **Y N** Is the wetland currently being used for (or does it have the potential to be used for) the following recreational activities? (Check all that apply.)

ACTIVITY	CURRENT USE	POTENTIAL USE
Nature study/photography		
Hiking/biking/skiing		
Hunting/fishing/trapping		
Boating/canoeing		
Food harvesting		
Others (list)		

11. **Y N** Is the wetland currently being used, and/or does it have the potential for use for educational or scientific study purposes (circle that which applies)?